ARBOR AUSTRALIS
CONSULTING

Arboricultural Impact Assessment

90% Detailed Design

Springbrook National Park

Best of All Lookout, Car Park Upgrade

Repeater Station Road, Springbrook Qld/NSW 4213

July 2025

ARBOR AUSTRALIS
CONSULTING

31st July 2025

Attention: Steve Novak
Director, Civil

WSP Australia Pty Limited
Level 12/900 Ann Street
Fortitude Valley
Qld 4006

Dear Steve

Re: Arboricultural Impact Assessment, Springbrook National Park, Best of All Lookout, Car Park Upgrade- 90% Detailed Design.

I am pleased to submit our assessment of the impacts on the existing trees within & adjacent to the proposed works. This report has been formulated following previous site inspections, tree surveys & assessments and numerous meetings & discussions with the project team.

I trust that you find this advice both satisfactory and helpful. Should you have any questions or require any further assistance with this or any other tree matter, please contact me on 07 3379 7793. I look forward to speaking to you soon.

Yours sincerely,

Jeremy Young
Managing Director
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Document Control

Document

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Report Title: Arboricultural Impact Assessment
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Client

Company: WSP
Contact: Steve Novak
Contact Position: Director-Civil

Site Stewards

Company: Queensland Parks and Wildlife Service & Partnerships
Contact: Phillip Maizey
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Revision History:

Version	Date	Details	Author	Reviewed	Authorised
30% DD Issue	10/04/2024	Arboricultural Impact Assessment, Tree Data and Tree Plans	Jeremy Young	JB	JY
90% DD Issue	31/07/2025	Arboricultural Impact Assessment 90% DD	Jeremy Young	JB	JY

Author Qualification and Experience Summary:

Jeremy Young
BSc (Hons) Arboriculture and Urban Forestry (First Class)
AQF level 6 (Arboriculture).
More than 35 years of industry experience.
Arboriculture Australia, Approved Consultant.
Queensland Arboricultural Association, Approved Consultant.
Brisbane City Council, Panel of Providers, Arboricultural Consultant.

Arboricultural Impact Assessment. Experience in over 1400 projects in the past eight years, ranging from small developments to significant infrastructure development.

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Arboricultural Impact Assessment: 90% Detailed Design

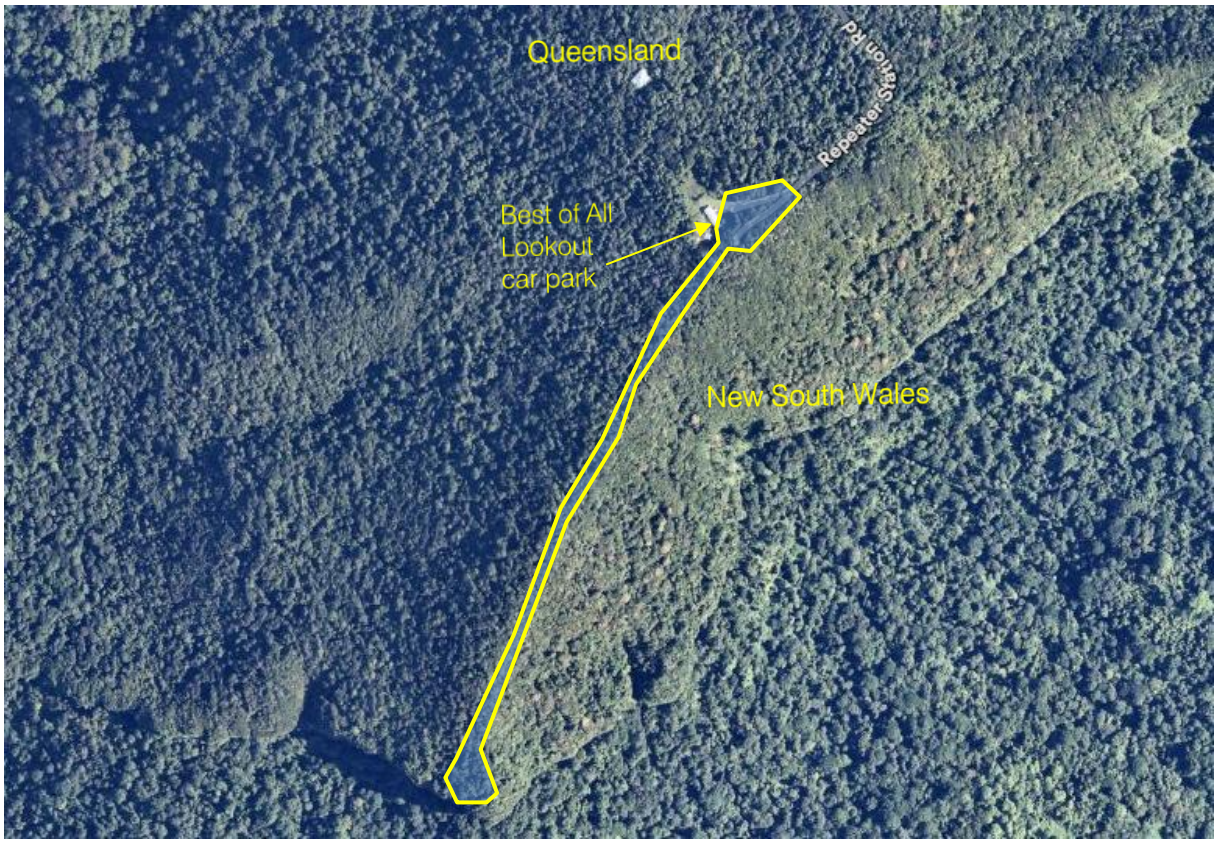
1.0 Scope & Context:

Arbor Australis Consulting (AAC) has been engaged as arborists to assess the impacts of proposed upgrade works on the existing trees located within & adjacent to the works footprint. This is the Arboricultural Impact Assessment (AIA) in relation to the proposed works based on 90% detailed design.

The tree assessment included a review of the health and structure of all trees greater than 150mm in trunk diameter adjacent to the proposed works. This report provides advice and recommendations of removal or retention together with guidance for tree protection for the proposed retained trees.

Tree retention and removal recommendations have been based on a combination of the proposed design constructability, tree health and tree structure. Further assessment will be required to determine impacts as further detailed design is developed.

Proposed Upgrade Sites: Best of All car park and walking track, Mount Mumdjin, Springbrook National Park.



Aerial image provided by Nearmap 2024. North is top of image

***Image 1**: The yellow polygon indicates the approximate area of tree survey assessment. Assessment of impacts is limited to the car park area.*

2.0 Brief Background & Methodology:

The intention of the project is to upgrade the current car park and walking track. Following initial engagement, a tree assessment and survey for trees previously identified by the ecological assessment for the concept design was conducted in March 2025. This was to confirm the trees' measurements, health & structure condition, location and site conditions.

An assessment of the existing adjacent environment and proposed works was then carried out to further understand the trees' ability to endure such activity. This lead to the delivery of the arboricultural input to the 30% detailed design in April 2025.

This arboricultural package for the 90% detailed design, is based on ongoing communications with the project design team. those communications.

This report must be read in conjunction with the Tree Data Table and the Tree Protection Plans (TPP) provided.

The trees' structures have been assessed utilising the ground based Visual Tree Assessment[1] method. Exiting tree numbering from the concept design has been retained for consistency. Tree heights and canopy spread were estimated and paced out on site. All measurements taken have been estimated or measured with the tools stated below:

- A smart phone camera for taking photographs.
- Where feasible, a Lufkin DBH forestry tape to measure the trees' trunk diameter at standard height (DSH).
- GPS Survey equipment to plot tree locations and record assessment data.

Assessment is carried out in a set pattern:

- Assessment of trees on the basis of health and structure to determine if the trees should be considered suitable for retention. Tree health, structure and species can combine to determine the tree as not suitable for retention.
- Assessment of the proposed development to determine impacts on tree health and structure as a result of the works. From this assessment, trees which can be successfully retained are identified.
- Development of the Tree Protection Requirements to ensure trees to be retained are protected during the development process. This may include minor alterations to the design and recommendations for alternate construction methods.

The determination of construction impacts has been based on both the assessment of drawings provided to Arbor Australis and a general understanding of the potential impacts of the proposed works.

[1] *Visual Tree Assessment (VTA) is based on Mattheck C and Breloer H (1994) and Mattheck et al. (2015) with methods of hazard assessment as proposed by Lonsdale D (1999).*

Tree locations have been plotted on the original survey drawing where applicable. Where trees are not located on the original survey, trees have been plotted using post post-possessed GPS to provide an accuracy of approximately 1m. The survey data has been overlaid on the drawings provided to AAC utilising AutoCAD.

Tree Protection Zones (TPZ) are plotted in accordance with the newly updated *Australian Standard 4970 – 2025 Protection of Trees on Development Sites.* Familiar acronyms have been changed in the Standard, which have been updated in the tree data table and tree plans provided. Apart from the acronym changes, principles of the standard remain the same.

3.0 Relevant Documents Provided

Relevant documents that have been utilised in this updated assessment:

- Base Detailed & Contour Survey, Schlenker Surveying, received 29/01/2025
- Preliminary Ecological Assessment, DES C/-CUSP, received 29/01/2025
- Annotated Significant Tree Cross Sections, CUSP, received 17/07/2025
- Civil Drawings 90% Issue, WSP, received 28/07/2025

4.0 Assumptions and Limitations

AAC has made the following assumptions and stated limitations regarding this project; further assumptions and limitations that may have arisen have been stated within the report:

- Certain tree data, including species identification and detail survey, has been provided by others; it is assumed that this information is accurate.
- Changes to tree health and structure may have occurred since the time of the survey due to environmental factors.
- Tree retention and removal are based on the 90% detailed design footprint. Site access for demolition & construction, along with its impacts on the existing trees, must be considered in both the final design and the assessment of the construction methodology proposed by the construction tenderers.
- This report is based on the documents provided to AAC, discussions with the project design team, data reviewed on-site and previous experience. Any changes to the proposed design will alter potential impacts on the trees, rendering the AIA, data table and TPP inaccurate.
- This report assumes that the areas identified as Tree Protection Zones (TPZ)[2] within the Tree Protection Plan (TPP) can be isolated from construction without encroachment. Access within TPZs may be facilitated under Project Arborist (PA) supervision subject to a review of work methodology.

[2] *Tree Protection Zone is the area of isolation intended for tree protection. This area is modified from the Notional Root Zone (NRZ) as set out in AS 4970 – 2025 to suit site-specific conditions, design and species tolerability.*

- This report makes assumptions about construction methodologies for the works. These assumptions are based on previous experience. The assumptions primarily relate to the fact that no access will be required into the designated TPZs.
- Tree management recommendations are based on this assessment. Further tree assessment is recommended at 12-month intervals or post extreme weather events to ensure duty of care compliance.
- Measurements have been scaled off the drawings provided where no written measurement was indicated.
- During the proposed works (including any demolition), site access will occur outside the proposed Tree Protection Zones (TPZs).
- It is assumed that the (PA) will be involved during demolition & construction. This is to provide advice, help resolve potential adverse impacts, direct construction crews working around trees, and confirm and document tree protection measures.
- Trees usually indicate internal anomalies through external biomechanics. However, external indicators may not always be present, especially with the limitations of a ground based VTA.
- This assessment is ground based only and is thus limited in assessing aerial aspects of trees.
- This assessment is not a risk assessment. It is intended to assess the impacts of the proposed works.
- It is assumed that all aspects and components of this AIA and TPP will be implemented in their totality.

5.0 Tree Impact Summary

The following paragraphs discuss tree impacts and justify the 90% detailed design tree retention and removal outcomes.

The assessed vegetation consists of semi-mature to early mature native species, with many species being endemic. The trees' health & structure conditions range from good to dead.

Key factors that will alter the determinations made for tree retention and tree removal for the 90% detailed design assessment are constructability requirements, which include accessibility and construction space necessary to construct the proposed design. While tree retention is accurate based on the 90% documentation, it is anticipated that as detailed design is further developed, this assessment will be updated and retainability may alter.

The proposed 90% detailed design, as currently outlined in the assessment documentation, will have an adverse impact on tree health and the potential tree structure. The potential impacts of this construction encroachment include damage to tree roots and crowns.

The predicted damage to the trees can be categorised as both direct and indirect (*see below*).

All trees within the construction can be considered as directly impacted by the proposed excavation, construction and infrastructure. Direct impacts are typically when trees cannot be sustainably retained due to the extent of below or above-ground impacts.

Trees adjacent to the works are a mix of both direct and indirect impacts. Typically, where the impacts are determined to be tolerable to tree sustainability, trees will be identified as to be retained or 'retained with impacts' when confirmation of the extent of impacts is yet to be confirmed. These impacts have been identified in the Tree Data Table and are described as:

Direct impact: All trees within the proposed civil earthworks[3] including bulk earthworks, excavation, service installation or hardstand construction areas will be directly impacted. This change to the root zones will have adverse impacts on tree health and structure due to root loss. Civil earthworks encroachment encompasses all construction requirements necessary to achieve the final design, including the movement of machinery.

Indirect impact: Where trees are located adjacent to civil excavation, compacted civil fill and hard landscape areas where a significant portion of the tree protection zone is impacted. The root-growing environment is changed through compaction, root severance and potential changes in soil hydrology. This results in a loss of roots, either structural or absorbing roots (single-cell root hairs), reduced gas exchange, decreased water percolation into the soil profile, and a reduction in viable root zone availability. This damage has a detrimental impact on tree health and may also compromise its structural integrity.

[3] Including machinery access and movement requirements.

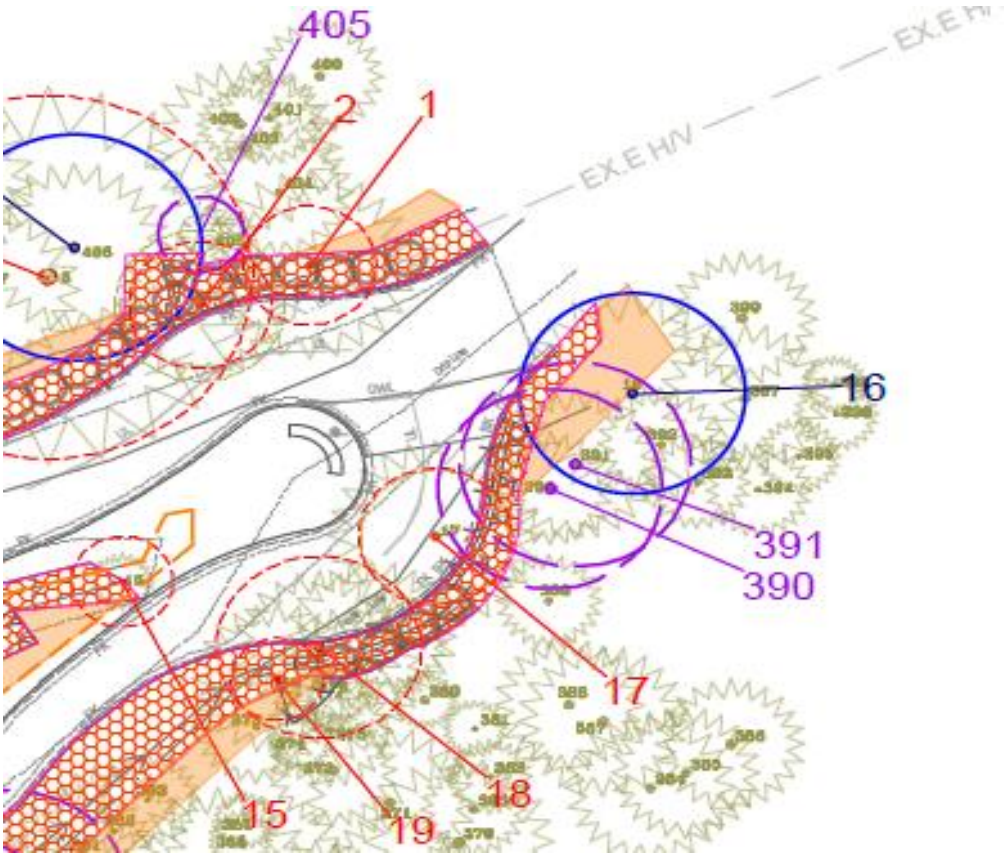


Image 2: Snippet from 90% Tree Removal Plan, showing an example of various impacts. Trees 1, 2, 15, 17, 18 & 19 are directly impacted and cannot be sustainably retained within the proposed design of the new car park. Trees 390, 391 & 405 are indirectly impacted and can be sustainably retained with limited and/or tolerable impacts subject to control measure being put in place.

5.1 Trees to be Removed:

Tree removal is primarily a result of the direct impacts of proposed civil engineering, especially cut and fill (earthworks), required for the construction of the road & carpark.

The 90% design has considered measures that potentially reduce the overall impacts, making design changes to limit adverse impacts to retained trees. The 90% detailed design tree removal determinations have been made following confirmation that they could not be designed around without adverse impact on tree health and structure. A total of **40 Trees** will require removal to facilitate the proposed project works. This number does not accounts for areas of other vegetation that require removal to facilitate the design.

5.2 Trees Retained with Impacts:

'Trees retained with impacts' are specimens that will be impacted; however, the extent of impacts is yet to be determined. Proposed construction footprints and constructability have been combined and weighed against tree tolerability to changes, primarily in the root zone.

The determination of 'trees retained with impacts' is based on the current 90% design and is due to the limited information available for construction requirements for the new infrastructure, and the location of the trees in proximity to the proposed works.

Once construction requirements are provided, a more precise determination can be made on tree retainability. Experience with many projects confirms that typically over-excavation beyond the design footprint is required to construct a design. This has the potential to have significant impacts on trees along the southern aspect of the site.

Cut and fill extents shown on the civil drawings indicate finished levels and not the required excavation to achieve the final design. While some excavation extents have been provided, not all have been detailed. This, along with construction access, has resulted in some trees being categorised as Retain with Impacts.

The nine (9) trees that have been shown as 'Trees Retained with Impacts' are intended to be retained; however, the true extent of impacts will need to be assessed at the time of construction. The Project Arborist may recommend future removal if root loss or crown damage is excessive or causes an increased likelihood of failure.

5.3 Trees to be Retained:

The 90% detailed design assessment of proposed works finds that the remaining trees can be retained. The trees to be retained may be impacted to a certain extent as a result of the proposed works, currently, this is considered tolerable for sustainable tree retention. Impacts can be reduced, and this assessment provides some guidelines on minimising these impacts.

This relies on the Project Arborist (PA) being on site during demolition, all excavations, and all works within the NRZ/TPZ to assess and help resolve conflicts between the proposed work and tree roots found during excavation.

The extent of roots present will also require a degree of flexibility in the constructability of the civil engineering and the understanding and acceptance that the presence of significant roots will trigger potential alterations to the design, engineering and construction, or a stopping of proposed works where the potential impacts to tree roots are deemed unacceptable.

If this cannot be achieved or resolved and impacts to existing tree roots are determined too excessive then further tree removals will be recommended.

The proposed methodologies outlined below allow tree root investigation to be conducted during construction to assist in determining impacts to existing roots. We do not know the extent of tree roots present without below ground exploration and/or removing existing hardstand.

Optimum tree retention and limited impacts to retained trees is the intended goal, with the engagement of a Project Arborist (PA) and implementation of all aspects of the tree protection strategy set out in this document, may be achieved.

6.0 Detailed Assessment of Construction Impacts, Trees to be Retained

The assessment has determined based on the information provided for this report, that the remainder of the trees on the site can be retained with the implementation of **all** aspects of the tree protection strategies set out in this document and Tree Protection Plans (TPP). The Tree Data Table identifies all trees assessed and their condition that was determined in April 2025.

Assessment of the preliminary design in accordance with *AS 4970 – 2025 'Protection of Trees on Development Sites',* identifies areas of potential impact to all trees in relation to tree health and structure. Key activities have been identified below with control measures to reduce the adverse impacts on retained trees.

Site Access: As stated above, construction access is yet to be clarified. Access to construct the proposed design has the greatest potential to further impact trees. Access for works must be limited to the area outside the identified Tree Protection Zones (TPZs) shown on the TPP. Any access into TPZs must only be done under the supervision of the Project Arborist. If access into the TPZ is required, the Project Arborist may direct ground protection methods to be installed.

Tree pruning: The implementation of the work to achieve the proposed design will also require the pruning of tree canopies. Consideration must be given to the tree canopy form of retained trees and the movement of machinery around the trees. However, if pruning to facilitate access is required, pruning works must be in accordance with AS 4373-2007 '*Pruning of Amenity Trees',* and be approved by both the Project Arborist and Asset Manager prior to any work being carried out.

Demolition, Construction and Earthworks: All demolition and excavation of hardstand areas and existing footings adjacent to the TPZs must be supervised by the Project Arborist. If roots are found, the Project Arborist will work with the construction crew and designer to find a resolution that limits impacts to the adjacent trees.

This assessment is based on the design & engineering footprints provided in these drawings. To ensure the trees proposed for retention are not compromised, the TPZ's must be isolated with fencing prior to construction works. Based on the design footprint and our understanding of construction methodologies, tree removal should be limited to the identified trees.

For all other retained trees, any excavation for the construction within trees' TPZs can compromise their root systems. It is essential that the Project Arborist (PA) is involved with the detailed engineering design to assess and provide arboricultural advice on the impacts of proposed hardstand and excavation within and directly adjacent to the TPZs. This is to ensure the Tree Protection Strategies specified in this document is not compromised.

Work methodology statements must be reviewed by the Project Arborist to assess their impacts prior to the works commencing. The primary issue is root damage as a result of grubbing, benching and earthworks. Supervision during works will include the Project Arborist providing direction to limit the impact to retained trees. This may include recommendations to change construction methodology.

Landscape works: All landscape works (including turf) within and adjacent to the TPZs must have the work methodology approved by the Project Arborist prior to work commencing. Arboricultural supervision will be required for any landscaping in TPZs. There must be no grubbing or change of ground level within the TPZs. The TPP also identifies specific areas of mulched garden as the final design outcome. This is to ensure that trees to be retained are not compromised.

Services: Plans provided show new services outside the NRZ of trees identified as retained. If there is a change of service installation in proximity to existing trees, then reassessment of impacts will be required.

7.0 Tree Protection Requirements:

To ensure the control measures are implemented, the following requirements must be put in place. These are the minimum requirements. Further protection may be instructed by the Project Arborist as a result of construction methodology, environmental factors and any non-conformance issues. This document's appendices provide a guide as to the possible further tree protection strategies that may be required.

The TPP provided with this report and the Tree Protection Strategies set out in Appendices 1 - 3, outline the tree protection measures required to ensure that retained trees are not impacted by construction. This assessment must be reviewed against the contractor's proposed construction methodology to ensure the tree retention strategies are not compromised.

The key elements of these strategies are:

1. Engage a Project Arborist (PA) to monitor tree protection and oversee any works adjacent to or encroaching within the TPZs, as shown in the TPP.
2. Tree Protection Fencing must be installed before work commences on site. The PA is to provide an inspection certificate to the Project Manager before work begins. Fencing locations shown on the TPP are a guide and will be confirmed on-site by the PA during setting out. Tree protection fencing is to delineate the Tree Protection Area and restrict access without the approval of the Project Arborist.
3. All fencing must be signed as "Tree Protection Fencing, No Access."
4. Machinery size, positioning and work methodology must consider tree canopies. The PA may direct trunk and branch protection to be installed to mitigate the risk of impact if necessary.
5. The TPZ is to be fenced with a minimum of 1.2m fencing (refer to detail) and is considered an absolute exclusion zone for all personnel, plant and any operations unless authorised by the PA.
6. Ongoing inspections, with frequency to be determined based on construction adjacent to trees to be retained and inspections at the Minimum Arboricultural Hold Points (refer to table) are to be carried out to confirm compliance with the Tree Protection Strategies. Ongoing assessment is required to provide certification after the project in accordance with *AS 4970-2025 Protection of Trees on Development Sites.*

7. Provide watering or irrigation of TPA at the direction of the PA, if deemed necessary. Watered root zones of trees limit the impacts of root damage. The volume and timing of water application will vary based on the climatic conditions at the time of development and the adjacent development disturbance. The aim is to maintain soil moisture at field capacity. The initial water volume is to be 200L per tree per week.
8. The PA must be on-site for specific excavation and other works as noted on TPP and AIA Report (See Hold Points). *The Project Arborist's role is to review the proposed methodology before any works commence on site and provide comments and recommendations to limit the impact of works on the retained trees.*
9. The exhaust of vehicles left running, such as cranes and delivery trucks, must not point into the canopy of a retained tree to limit foliage damage.
10. Within the identified and fenced Tree Protection Zones, there must be no excavation, changes in levels, storage of materials or any construction activities without prior involvement and approval of the Project Arborist.

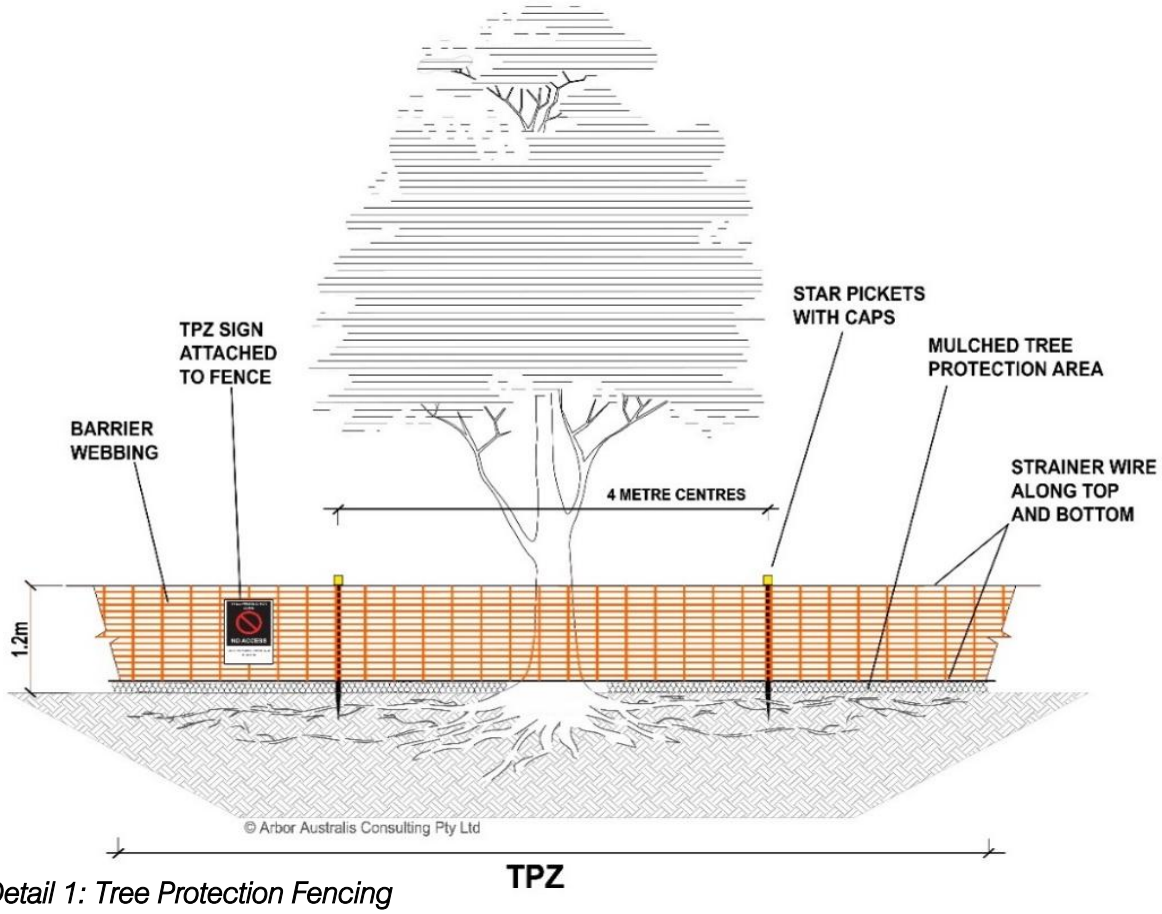
The retained trees will be isolated from construction by installing Tree Protection Fencing as set out on the TPP and adhering to the tree protection specified in this document. Implementing the Minimum Arboricultural Hold Points is vital to achieving sustainable tree retention

Disturbance to the subject trees during construction will be mitigated by adhering to the Tree Protection Strategies outlined in this report and by installing Tree Protection Fencing as set out in the TPP.

8.0 Minimum Arboricultural Hold Points

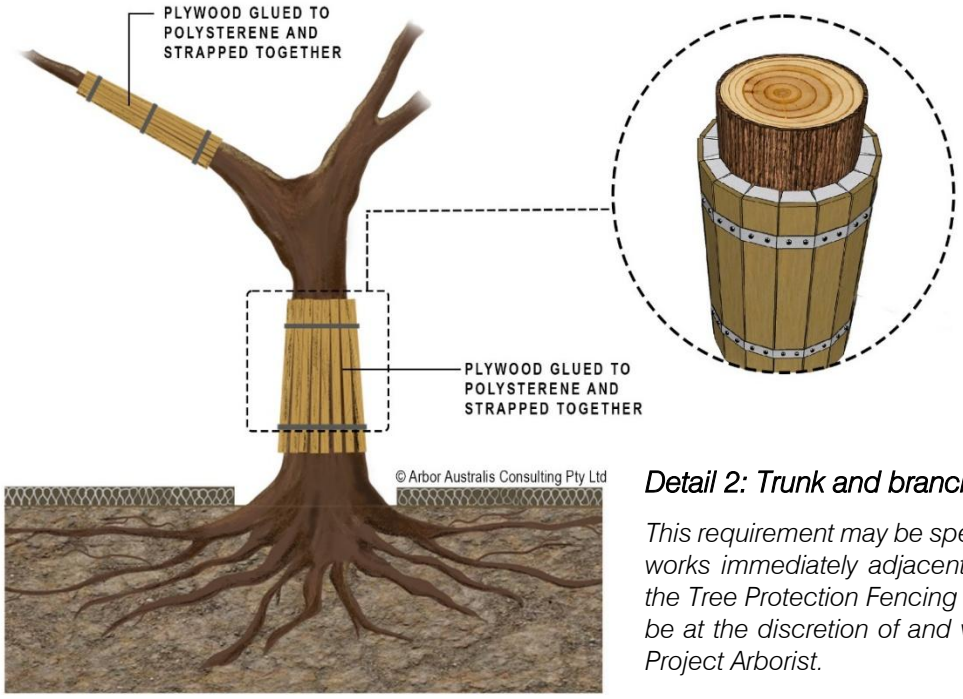
Hold Point	Point	Action
Final Design Phase		
1	Final Design (It is recommended the PA is engaged by client for detailed design assessment)	• Arboricultural involvement in assessing the impact of detailed design on the existing trees. • Review construction methodology and consider site access. • Review and advise on design changes to increase tree retention.
Tender Phase		
2	Tender Assessment (It is recommended the PA is engaged by client for tender assessment)	• Assessment of proposed demolition & construction methodology in relation to tree protection. • Resolve any conflict that may arise between the Tree Protection Plan and the proposed demolition & construction requirements.
Demolition & Construction Phase		
3	Prestart (PA may be engaged by either client or contractor subject to contractual preferences)	• Confirm access restrictions to the Tree Protection Areas. • Confirm Tree Protection Fencing requirements. • Discuss any conflicts between the Tree Protection Plan and the proposed construction requirements. • Check that all permits and approvals are in place. Copies of all permits and approvals are provided to the Project Arborist.
4	Tree Protection Fence (TPF) Establishment	• Project Arborist will mark out the Tree Protection Fencing location. • Resolve any conflict that may arise between the Tree Protection Plan and the proposed demolition & construction requirements. • Project Arborist to confirm Tree Protection Fencing signage is in place.
5	Access required into TPAs for any reason	• Project Arborist to assess the impacts on trees from the proposed access. • Project Arborist to determine the control measures that are required to protect trees. • Project Arborist to provide written confirmation of access and protection measures before access is permitted.
6	Before the removal of Tree Protection Fencing	• Project Arborist to assess any further works and determine the potential for adverse impacts to tree health or structure. • Project Arborist confirmation is required before fencing is removed.
7	Completion of works	• Project Arborist to provide a complete report and summary of tree protection implementation

9.0 Tree Protection Details:



Detail 1: Tree Protection Fencing

To be installed in accordance with locations shown on the Tree Protection Plan.



Detail 2: Trunk and branch protection.

This requirement may be specified to be installed for works immediately adjacent to a tree that requires the Tree Protection Fencing to be removed. This will be at the discretion of and with the approval of the Project Arborist.

Detail 3: Example of ground protection.
If access into a TPA is required, the Project Arborist may direct trunk protection, and/or ground protection to be installed such as ground-mats or boards.

10.0 Conclusion

This report provides details about the existing trees within the proposed 90% detailed design footprint and provides an assessment of the impacts of the proposed works on these trees.

The implementation of all recommendations is vital to ensure the intention of this impact assessment is not compromised. Under the proposed design and with the involvement of a Project Arborist, the tree identified for retention can be retained successfully provided the all the tree protection measures in this report are implemented.

Tree protection measures include the potential for plant health care (PHC) program recommendations which can be utilised to reduce impacts to retained trees. PHC programs may be recommended at the discretion of the Project Arborist.

Further confirmation of constructability and site accessibility will assist in determining the outcome for tree specified as 'Trees Retained with Impacts'. The intent is to sustainably retain as many trees as is possible.

It is vital that proposed access for construction and the proposed construction methodology are reviewed by the Project Arborist to ensure the intent is not compromised.

It is also imperative that all parties assigned to conducting the project works are aware of the proposed arboricultural requirements. Communications between all parties regarding the arboricultural requirements must be clear, open and forthcoming for the duration of the project to ensure optimal tree retention outcomes.

For the requirements of the tree protection specified in this report to be successful, an allocation of finances is required to be integral to the project. Any budgetary constraints regarding tree protection will potentially limit the desired outcome of tree retainability and sustainability.

Appendix 1: Aspects of Tree Retention Strategies

Project Arborist

A Project Arborist will be appointed for the duration of the project. The Project Arborist must be qualified with AQF level 5 Arboriculture, with a minimum of 10 years industry experience and be a current member of a recognised Arboriculture Association. The primary role on this project is to ensure tree protection is established and maintained. The Project Arborist is to approve and supervise all works within fenced Tree Protection Areas.

Monitoring

All tree protection measures are to be monitored and recorded on a fortnightly to ensure tree protection is being maintained. This is to be summarised in a Completion Report certifying that the tree protection was maintained for the duration of the project. Any activity that is to occur within the Tree Protection Areas is to be certified by the Project Arborist. *Note: Supervision outlined in the control measures is likely to be greater than the minimum monthly inspection period.*

Supervision

Supervision requires the Project Arborist to assess work methodology prior to works commencing and to be on site for works in the identified areas. Supervision has been identified where works need to occur within the zone that has the potential to adversely impact retained trees. *The contractors proposed construction methodology may need to be changed to reduce impacts to retained trees.*

Tree Protection Zone

NB: TPZ refers to the site-specific area that has been determined by the Project Arborist as the minimum protection area for the tree or collection of trees. TPZ considers the notional root zone (NRZ) which is the radius of root protection from the tree trunk(s) based on tree trunk measurement. This determination is based on a combination of the tree species, tree species tolerability, soil profile types and depths, and existing site conditions. All of these factors have a bearing on the protection area required to achieve successful and sustainable tree retention.

It is vital that the trees receive protection during construction to reduce the effects of compaction, root severance and moisture loss from the soil profile. Changes in levels around the trees are the greatest cause of damage both directly and indirectly. This issue is to be addressed through no changes in levels within the fenced TPZ as set out by the Project Arborist. Fencing will identify the work zone for machinery access.

Fencing

All trees that are to be retained are to be fenced as set out by the Project Arborist prior to any works. The fencing should be a minimum of 1.2m site fencing (refer to TPP). The fence should clearly be signed Tree Protection Zone. Any activity within the protected zone requires the approval of the supervising Arborist.

Appendix 2: General Tree Protection Specifications and Guidelines:

Tree Protection Plan (TPP)

The TPP sets out a guide to installing Tree Protections. This may be modified on-site or as issues arise during construction by the Project Arborist.

Project Arborist

In accordance with *AS 4970 – 2025 Protection of Trees on Development Sites,* the Project Arborist (AQF level 5) is to be engaged to oversee work in relation to tree protection.

Review of Construction Methodology & Machinery

The Project Arborist must review the Tree Protection Specifications and Tree Protection Plan once the construction methodology and machinery selection has been confirmed. Machinery selection must be able to access work areas without impacting tree canopies and must be approved by the Project Arborist prior to the commencement of works.

The proposed construction methodology or design may require adjustment under the direction of the Project Arborist to address potential unforeseen impacts on trees. The construction methodology must consider tree canopy form in regard to machinery size. Machinery must not contact the crown of trees to be retained. No pruning of tree canopies for machinery access is permitted unless approved otherwise by the Project Arborist.

Marking

The Project Arborist will clearly identify any tree to be removed before the commencement of any clearing works. The Project Arborist is to be on-site for the commencement of tree removal to ensure tree protection is in place.

Tree Removal

Tree removal methodology must not damage retained trees. The tree removal methodology must be approved by the Project Arborist prior to removal.

Tree Protection Zones (TPZ)

TPAs are identified for the protection of the tree roots and the crown from damage during construction. Within these areas, there must be no storage of materials, filling, excavation, services, machinery access, and construction path or any activity that the Project Arborist does not approve. TPZ signage must state "Tree Protection Zone - No Access" and include the Project Arborist's contact details. Refer to the hatched areas shown on the Tree Protection Plan for the locations of TPZs.

Tree Protection Fencing (TPF)

Unless otherwise approved by the Project Arborist, the TPF will be installed in accordance with the details and locations shown on the Tree Protection Plan. Fencing will be as per the preferred

fencing detail. Tree Protection Fencing locations shown on the TPP are indicative only. Locations to be confirmed on site by Project Arborist at site set out.

Access Within the TPZs

Proposed works within the identified TPZs that require machinery access may require (at Project Arborist discretion) ground protection and trunk protection (refer to example detail). Ground protection is determined by machinery selection and is restricted to light machinery only.

Landscape Works in TPZs

Any proposed soft landscape works (including turf) within a TPZ must be carried out by hand and approved by the Project Arborist.

Preparation of any planting of areas within the TPZ must not be left exposed for more than 24 hours without a mulch layer to protect against moisture loss.

Roots

In any location on site, where it is necessary to cut tree roots in excess of 50 mm diameter, obtain approval from the Superintendent and Project Arborist prior to commencement. Use methods that do not unduly disturb the remaining root system. It is recommended at that all root pruning is carried out by the Project Arborist.

Erosion and Sediment Control

Excavation required for typical erosion and sediment control fencing within close proximity to retainable trees will have an adverse impact on the tree's root system.

A no-excavation alternative has been proposed and is highly recommended within the TPZ of any retained trees. Refer to the Tree Protection Details sheet for indicative erosion and sediment control methods. Refer to the Tree Protection Details Sheet for further information.

Harmful Materials

Do not store or place harmful materials under or near trees. Prevent wind-blown materials such as cement from contacting and damaging trees and plants.

Compacted Ground

Do not compact the ground under trees unless approved by the Superintendent and Project Arborist. Do not stockpile materials within the drip line. Do not permit contractors', employees' or subcontractors' vehicles and machinery to be parked within the drip line. Do not permit vehicles or equipment to utilise the TPZ as a trafficable area. If compaction (of areas within the drip line but not occupied by the Works) occurs, notify the Superintendent and Project Arborist, seek instructions. If access over the TPZ is required, the Project Arborist may direct ground protection methods to be utilised.

Remedial and Target Tree Pruning

Retained trees must be inspected for pruning works by Project Arborist after tree removal works. If it is necessary to perform any work on trees to be retained. All pruning work must comply with *AS 4373 – 2007 Pruning of amenity trees.*

Remedial Plant Health Care

In the event of any damage to trees above or below ground, an assessment by the Project Arborist and a remedial works program is required. This shall be provided to the Superintendent for approval prior to any works being completed. Any repair work must be carried out by an AQF level 5 Arborist.

Mulching

Any area within or directly adjacent to the TPZ that has been disturbed will require mulching with chipped forest mulch to a depth of 100mm. The Project Arborist will monitor the mulch levels throughout the project and may request that they are topped up.

Soil Moisture

The Project Arborist will monitor soil moisture levels. During construction, supplementary watering may be required to maintain tree health. The need for watering will depend on climatic conditions, tree species and the level of disturbance that changes the soil moisture levels around the trees. The PA will determine the need for watering of trees adjacent to work areas to ensure soil moisture is maintained at field capacity.

Appendix 3: Maintaining Tree Health, General Guidelines

The guidelines below are general guidelines aimed at informing the client and contractor of key points that may be required to maintain tree health. As every site is different this program will be adjusted at the direction of the Project Arborist to address the needs of the trees.

Pre-Development:

To minimise long term impacts on tree health as a result of changing site conditions it is vital that the root zones of trees proposed for retention are prepared to maximise fibrous root growth in the available space. Ideally this process will begin 12 months prior to development. This process will include:

- Mulch Tree Protection Zones (TPZs) with chipped forest[4] mulch to a depth of 100mm
- Watering to maintain soil at field capacity. The amount and timing of watering will vary between trees. The Project Arborist will need to monitor watering and adjust program as required.
- Where trees are of reduced vigour there may be requirement to promote health improvements through plant health care programs (PHC). As all trees are different this will need to be adjusted by the Project Arborist to match the needs of both the trees and the site.

During Development:

The primary plant health impact during development and civil works is the loss of soil moisture. Soil moisture can be lost both from lack of mulch and excavation. To compensate for this loss, the TPZ may require irrigation during the development period.

If excavation extends into the TPZ for whatever reason, remedial works will be required to address loss of absorption roots. An adjustment to irrigation will be required and the application of a PHC program to promote new root growth must be implemented.

Key Points:

- Maintain soil at Field Capacity.
- Maintain mulch cover on the TPZ.
- Exclude all construction activity from the TPZ.

Post Development:

Provided the preparation for development and Tree Protection during development has properly considered the trees and their requirements for growth, there should be no need for any post construction remedial works. However, if damage is sustained the Project Arborist may advise on extending measures to be implemented during construction.

It would be prudent to implement re-inspection of retained trees at 12 and 24 months following the completion development to determine the true impacts that occurred during construction.

[4] *Chipped forest mulch has ideally been stockpiled and turned for a minimum of 3 months. Tub ground mulch is not acceptable for use around trees.*

Tree Data Table: Springbrook National Park, Best of All Lookout Car Park Upgrade:

Tree Assessment												Actions			
Tree ID	*Botanic Name*	Tree Height (m)	Crown Width (m)	DSH (mm)	SRZ radius from trunk (m)	NRZ radius from trunk (m)	Tree Health	Health Comment	Tree Structure	Structure Comment	Comments	Remedial Works	Design Impact Reasoning	Status	Reinspection (years)
1	*Duboisia myoporoides*	16	12	260	1.9	3.1	Fair	Typical	Good	Asymmetric Crown Form			Design	Remove	N/A
2	*Duboisia myoporoides*	14	8	280	1.9	3.4	Fair	Typical	Fair	Asymmetric Crown Form			Design	Remove	N/A
3	*Duboisia myoporoides*	20	20	800	3.0	9.6	Fair	Typical	Fair	Typical	Failed in storm	Remove	Failed	Remove	N/A
4	*Acacia melanoxylon*	6	7	200	1.7	2.4	Fair	Typical	Good	Typical			N/A	Retain	1
5	*Acacia melanoxylon*	14	12	350	2.1	4.2	Good	Typical	Good	Typical			Design	Retain with Impacts	1
6	*Callicoma serratifolia*	9	8	280	1.9	3.4	Fair	Crown Decline	Fair	Asymmetric Crown Form			Design	Remove	N/A
7	*Syzygium ingens*	8	5	250	1.8	3.0	Good	Typical	Fair	Multi-stemmed at base			Design	Remove	N/A
8	*Callicoma serratifolia*	14	10	400	2.3	4.8	Good	Typical	Fair	Multi-stemmed at base	Clump of trees, possible coppice		Design	Remove	N/A
9	*Callicoma serratifolia*	11	9	510	2.5	6.1	Good	Typical	Fair	Multi-stemmed at base			Design	Remove	N/A
10	*Callicoma serratifolia*	14	7	270	1.9	3.2	Good	Typical	Fair	Asymmetric Crown Form			Design	Remove	N/A
11	*Callicoma serratifolia*	10	7	450	2.4	5.4	Good	Typical	Fair	Multi-stemmed at base			Design	Remove	N/A
12	*Callicoma serratifolia*	14	8	420	2.3	5.0	Good	Typical	Fair	Multi-stemmed at base			Design	Remove	N/A
13	*Duboisia myoporoides*	11	7	270	1.9	3.2	Fair	Typical	Good	Asymmetric Crown Form			Design	Remove	N/A
14	*Orites excelsa*	8	4	200	1.7	2.4	Good	Typical	Good	Multi-stemmed			N/A	Retain	1
15	*Ackama paniculosa*	9	5	200	1.7	2.4	Good	Typical	Fair	Multi-stemmed			Design	Remove	N/A
16	*Duboisia myoporoides*	14	12	440	2.3	5.3	Good	Typical	Fair	Asymmetric Crown Form	Vine in crown		N/A	Retain	1
17	*Acacia melanoxylon*	14	10	300	2.0	3.6	Fair	Typical	Poor	Asymmetric Crown Form	Vine in crown		Design	Remove	N/A
18	*Duboisia myoporoides x 2*	16	10	400	2.3	4.8	Poor	Crown Decline	Fair	Typical			Design	Remove	N/A
19	*Cinnamomum oliveri*	13	8	180	1.6	2.2	Good	Typical	Fair	Typical			Design	Remove	N/A
20	*Callicoma serratifolia*	13	12	480	2.4	5.8	Good	Typical	Fair	Multi-stemmed at base			Design	Retain with Impacts	1
21	*Callicoma serratifolia*	12	10	400	2.3	4.8	Good	Typical	Fair	Multi-stemmed at base			Design	Retain with Impacts	1
22	*Callicoma serratifolia*	15	14	450	2.4	5.4	Good	Typical	Fair	Multi-stemmed at base			Design	Remove	N/A
23	*Callicoma serratifolia*	13	7	200	1.7	2.4	Good	Typical	Fair	Asymmetric Crown Form			Design	Remove	N/A
24	*Callicoma serratifolia*	13	12	220	1.8	2.6	Good	Typical	Fair	Asymmetric Crown Form			Design	Remove	N/A
25	*Callicoma serratifolia*	15	12	450	2.4	5.4	Good	Typical	Poor	Trunk Cavity	Poor form		Design	Remove	N/A
26	*Callicoma serratifolia*	14	7	200	1.7	2.4	Good	Typical	Fair	Typical			Design	Remove	N/A
27	*Callicoma serratifolia*	13	14	1200	3.6	14.4	Fair	Typical	Fair	Multi-stemmed at base			Design	Remove	N/A

Tree Assessment												Actions			
Tree ID	*Botanic Name*	Tree Height (m)	Crown Width (m)	DSH (mm)	SRZ radius from trunk (m)	NRZ radius from trunk (m)	Tree Health	Health Comment	Tree Structure	Structure Comment	Comments	Remedial Works	Design Impact Reasoning	Status	Reinspection (years)
28	*Callicoma serratifolia*	11	7	200	1.7	2.4	Fair	Typical	Fair	Typical			Design	Remove	N/A
29	*Dead Stag*	14	6	300	2.0	3.6	Dead	Dead	Dead	Typical			Design	Remove	N/A
30	*Callicoma serratifolia*	12	12	450	2.4	5.4	Good	Typical	Fair	Multi-stemmed at base			Design	Remove	N/A
31	*Callicoma serratifolia*	14	12	600	2.7	7.2	Good	Typical	Fair	Multi-stemmed at base			Design	Remove	N/A
32	*Syzygium ingens*	14	9	400	2.3	4.8	Good	Typical	Fair	Typical			Design	Remove	N/A
33	*Syzygium ingens*	15	9	400	2.3	4.8	Good	Typical	Fair	Typical			Design	Remove	N/A
34	*Duboisia myoporoides*	11	8	330	2.1	4.0	Good	Typical	Fair	Typical			Design	Remove	N/A
35	*Cryptocarya meisneriana*	15	10	400	2.3	4.8	Good	Typical	Fair	Multi-stemmed at base	Vine in crown		Design	Remove	N/A
36	*Doryphora sassafras*	13	7	380	2.2	4.6	Fair	Typical	Fair	Multi-stemmed at base	Vine in crown		Design	Remove	N/A
37	*Endiandra muelleri*	8	5	200	1.7	2.4	Good	Typical	Fair	Typical			Design	Remove	N/A
38	*Syzygium ingens*	9	3	200	1.7	2.4	Fair	Typical	Fair	Crown Failure			Design	Remove	N/A
39	*Callicoma serratifolia*	14	10	300	2.0	3.6	Good	Typical	Fair	Multi-stemmed at base			N/A	Retain	1
40	*Callicoma serratifolia*	15	14	350	2.1	4.2	Good	Typical	Fair	Multi-stemmed at base			N/A	Retain	1
41	*Syzygium ingens*	16	12	500	2.5	6.0	Good	Typical	Good	Typical			N/A	Retain	1
42	*Syzygium ingens*	18	15	500	2.5	6.0	Good	Typical	Good	Typical			N/A	Retain	1
43	*Callicoma serratifolia x 2*	8	11	600	2.7	7.2	Fair	Typical	Fair	Multi-stemmed at base			Design	Retain with Impacts	1
44	*Callicoma serratifolia*	7	5	200	1.7	2.4	Dead	Dead	Fair	Typical			Design	Remove	N/A
45	*Dead Stag*	9	9	200	1.7	2.4	Fair	Typical	Fair	Typical			Dead Tree	Remove	N/A
46	*Orites excelsa*	13	93	260	1.9	3.1	Good	Typical	Fair	Typical			Design	Remove	N/A
47	*Doryphora sassafras*	18	8	330	2.1	4.0	Good	Typical	Fair	Typical			Design	Retain with Impacts	1
49	*Unkown Species*	20	10	500	2.5	6.0	Fair	Typical	Fair	Typical			N/A	Retain	1
53	*Unkown Species*	16	6	200	1.7	2.4	Fair	Typical	Fair	Typical			N/A	Retain	1
54	*Cyathea species*	8	4	100	1.5	2.0	Fair	Typical	Fair	Typical			N/A	Retain	1
59	*Cyathea species*	8	3	100	1.5	2.0	Fair	Typical	Fair	Typical			N/A	Outside Carpark Area	1
71	*Cyathea species*	8	2	100	1.5	2.0	Fair	Typical	Fair	Vine in canopy			N/A	Outside Carpark Area	1
72	*Unknown Species*	13	13	380	2.2	4.6	Fair	Typical	Fair	Multi-stemmed at base			N/A	Outside Carpark Area	1
73	*Unknown Species*	16	10	250	1.8	3.0	Fair	Typical	Fair	Asymmetric Crown Form			N/A	Outside Carpark Area	1
74	*Unknown Species*	16	14	500	2.5	6.0	Fair	Typical	Fair	Vine in canopy			N/A	Outside Carpark Area	1
75	*Unknown Species*	15	7	180	1.6	2.2	Fair	Typical	Fair	Typical			N/A	Outside Carpark Area	1
76	*Unknown Species*	15	6	180	1.6	2.2	Fair	Typical	Fair	Typical			N/A	Outside Carpark Area	1
82	*Unknown Species*	18	15	600	2.7	7.2	Fair	Typical	Fair	Multi-stemmed at base			N/A	Outside Carpark Area	1
85	*Unknown Species*	14	6	250	1.8	3.0	Fair	Crown Decline	Fair	Typical			N/A	Outside Carpark Area	1
92	*Unknown Species*	18	15	1000	3.3	12.0	Fair	Typical	Fair	Multi-stemmed at base			N/A	Outside Carpark Area	1

Tree Assessment												Actions			
Tree ID	*Botanic Name*	Tree Height (m)	Crown Width (m)	DSH (mm)	SRZ radius from trunk (m)	NRZ radius from trunk (m)	Tree Health	Health Comment	Tree Structure	Structure Comment	Comments	Remedial Works	Design Impact Reasoning	Status	Reinspection (years)
97	*Unknown Species*	18	15	800	3.0	9.6	Fair	Typical	Fair	Multi-stemmed at base			N/A	Outside Carpark Area	1
104	*Unknown Species*	18	8	340	2.1	4.1	Fair	Typical	Fair	Typical			N/A	Outside Carpark Area	1
105	*Unknown Species*	14	7	200	1.7	2.4	Fair	Typical	Fair	Typical			N/A	Outside Carpark Area	1
106	*Unknown Species*	15	10	230	1.8	2.8	Fair	Typical	Poor	Poor Form	Root plate failure across path		N/A	Outside Carpark Area	1
108	*Unknown Species*	16	10	380	2.2	4.6	Fair	Typical	Fair	Typical			N/A	Outside Carpark Area	1
109	*Unknown Species*	15	10	300	2.0	3.6	Fair	Typical	Fair	Poor Form	Lean across path		N/A	Outside Carpark Area	1
114	*Unknown Species*	16	8	450	2.4	5.4	Good	Typical	Fair	Multi-stemmed			N/A	Outside Carpark Area	1
117	*Unknown Species*	14	13	600	2.7	7.2	Fair	Typical	Fair	Poor Form			N/A	Outside Carpark Area	1
128	*Unknown Species*	16	8	500	2.5	6.0	Fair	Typical	Fair	Asymmetric Crown Form			N/A	Outside Carpark Area	1
130	*Unknown Species*	14	8	200	1.7	2.4	Fair	Typical	Fair	Asymmetric Crown Form			N/A	Outside Carpark Area	1
138	*Unknown Species*	16	8	400	2.3	4.8	Fair	Typical	Fair	Typical			N/A	Outside Carpark Area	1
139	*Unknown Species*	16	7	200	1.7	2.4	Fair	Typical	Fair	Vine in canopy			N/A	Outside Carpark Area	1
140	*Unknown Species*	15	12	450	2.4	5.4	Poor	Crown Decline	Fair	Typical			N/A	Outside Carpark Area	1
144	*Unknown Species*	16	12	400	2.3	4.8	Fair	Typical	Fair	Lean	Past root plate failure		N/A	Outside Carpark Area	1
145	*Unknown Species*	15	3	200	1.7	2.4	Fair	Typical	Fair	Typical			N/A	Outside Carpark Area	1
160	*Unknown Species*	17	14	500	2.5	6.0	Fair	Typical	Fair	Multi-stemmed			N/A	Outside Carpark Area	1
169	*Unknown Species*	18	8	130	1.5	2.0	Fair	Typical	Fair	Typical			N/A	Outside Carpark Area	1
176	*Cyathea species*	7	3	75	1.5	2.0	Fair	Typical	Fair	Typical			N/A	Outside Carpark Area	1
177	*Unknown Species*	14	10	220	1.8	2.6	Fair	Typical	Fair	Typical			N/A	Outside Carpark Area	1
178	*Unknown Species*	16	8	260	1.9	3.1	Fair	Typical	Fair	Typical			N/A	Outside Carpark Area	1
179	*Unknown Species*	14	8	200	1.7	2.4	Fair	Typical	Fair	Multi-stemmed at base			N/A	Outside Carpark Area	1
187	*Unknown Species*	13	9	600	2.7	7.2	Fair	Typical	Fair	Multi-stemmed at base			N/A	Outside Carpark Area	1
198	*Unknown Species*	17	8	280	1.9	3.4	Fair	Typical	Fair	Lean			N/A	Outside Carpark Area	1
199	*Unknown Species*	16	8	300	2.0	3.6	Fair	Typical	Fair	Lean			N/A	Outside Carpark Area	1
202	*Unknown Species*	12	6	300	2.0	3.6	Fair	Sparse	Fair	Typical			N/A	Outside Carpark Area	1
226	*Unknown Species*	8	3	200	1.7	2.4	Fair	Sparse	Fair	Typical			N/A	Outside Carpark Area	1
227	*Unknown Species*	12	4	300	2.0	3.6	Fair	Sparse	Fair	Lean			N/A	Outside Carpark Area	1
228	*Unknown Species*	8	3	200	1.7	2.4	Fair	Sparse	Fair	Lean			N/A	Outside Carpark Area	1
235	*Unknown Species*	11	3	200	1.7	2.4	Fair	Sparse	Fair	Typical			N/A	Outside Carpark Area	1
238	*Unknown Species*	7	5	200	1.7	2.4	Fair	Sparse	Fair	Typical			N/A	Outside Carpark Area	1
244	*Unknown Species*	20	14	600	2.7	7.2	Fair	Typical	Fair	Vine in canopy			N/A	Outside Carpark Area	1
246	*Unknown Species*	11	3	250	1.8	3.0	Fair	Sparse	Fair	Typical			N/A	Outside Carpark Area	1
261	*Unknown Species*	23	15	500	2.5	6.0	Fair	Typical	Fair	Vine in canopy			N/A	Outside Carpark Area	1

Tree Assessment												Actions			
Tree ID	*Botanic Name*	Tree Height (m)	Crown Width (m)	DSH (mm)	SRZ radius from trunk (m)	NRZ radius from trunk (m)	Tree Health	Health Comment	Tree Structure	Structure Comment	Comments	Remedial Works	Design Impact Reasoning	Status	Reinspection (years)
264	*Unknown Species*	7	3	150	1.5	2.0	Dead	Dead	Dead	Typical			N/A	Outside Carpark Area	1
265	*Unknown Species*	6	1	60	1.5	2.0	Fair	Sparse	Fair	Typical			N/A	Outside Carpark Area	1
266	*Unknown Species*	2	1	300	2.0	3.6	Dead	Dead	Dead	Typical			N/A	Outside Carpark Area	1
272	*Unknown Species*	12	4	250	1.8	3.0	Fair	Sparse	Fair	Typical			N/A	Outside Carpark Area	1
279	*Unknown Species*	10	4	200	1.7	2.4	Fair	Sparse	Fair	Typical			N/A	Outside Carpark Area	1
280	*Unknown Species*	9	3	200	1.7	2.4	Fair	Sparse	Fair	Typical			N/A	Outside Carpark Area	1
287	*Unknown Species*	15	9	240	1.8	2.9	Fair	Typical	Fair	Typical			N/A	Outside Carpark Area	1
292	*Unknown Species*	14	8	300	2.0	3.6	Fair	Sparse	Fair	Typical			N/A	Outside Carpark Area	1
307	*Unknown Species*	11	2	160	1.5	2.0	Good	Typical	Fair	Typical			N/A	Outside Carpark Area	1
308	*Unknown Species*	14	6	250	1.8	3.0	Fair	Sparse	Fair	Typical			N/A	Outside Carpark Area	1
309	*Unknown Species*	11	4	200	1.7	2.4	Fair	Sparse	Fair	Typical			N/A	Outside Carpark Area	1
310	*Unknown Species*	10	6	300	2.0	3.6	Fair	Sparse	Fair	Typical			N/A	Outside Carpark Area	1
321	*Unknown Species*	15	10	500	2.5	6.0	Fair	Sparse	Fair	Trunk Cavity			N/A	Outside Carpark Area	1
322	*Unknown Species*	25	15	400	2.3	4.8	Fair	Sparse	Fair	Lean			N/A	Outside Carpark Area	1
324	*Unknown Species*	25	15	800	3.0	9.6	Fair	Sparse	Fair	Lean			N/A	Outside Carpark Area	1
325	*Unknown Species*	13	5	300	2.0	3.6	Fair	Crown Decline	Fair	Typical			N/A	Outside Carpark Area	1
390	*Duboisia myoporoides*	17	10	440	2.3	5.3	Fair	Typical	Fair	Vine in canopy			Design	Retain with Impacts	1
391	*Syzygium ingens*	17	12	450	2.4	5.4	Fair	Typical	Fair	Typical			Design	Retain with Impacts	1
405	*Rhodomyrtus psidioides*	3	2	50	1.5	2.0	Fair	Typical	Fair	Typical			Design	Retain with Impacts	1
406	*Duboisia myoporoides*	21	15	500	2.5	6.0	Fair	Typical	Fair	Vine in canopy			N/A	Retain	1
420	*Doryphora sassafras*	11	7	280	1.9	3.4	Good	Typical	Good	Typical			Desing	Remove	N/A
421	*Doryphora sassafras*	12	7	250	1.8	3.0	Good	Typical	Good	Typical			Desing	Remove	N/A
423	*Duboisia myoporoides*	13	12	500	2.5	6.0	Fair	Typical	Fair	Typical			Desing	Remove	N/A
427	*Orites excelsa*	9	6	250	1.8	3.0	Fair	Typical	Fair	Multi-stemmed			N/A	Retain	1
428	*Cryptocarya meisneriana*	15	10	300	2.0	3.6	Good	Typical	Fair	Asymmetric Crown Form			N/A	Retain	1
429	*Cryptocarya meisneriana*	15	10	300	2.0	3.6	Good	Typical	Fair	Typical			N/A	Retain	1
434	*Rhodomyrtus psidioides*	12	10	450	2.4	5.4	Fair	Typical	Fair	Multi-stemmed at base			Design	Retain with Impacts	1
437	*Dead Stag*	10	5	300	2.0	3.6	Dead	Dead	Poor	Typical			Design	Remove	N/A
438	*Callicoma serratifolia*	12	10	300	2.0	3.6	Good	Typical	Fair	Multi-stemmed at base			Design	Remove	N/A
1001	*Callicoma serratifolia*	11	6	300	2.0	3.6	Fair	Typical	Fair	Multi-stemmed at base			Design	Remove	N/A
1002	*Unkown Species*	18	12	300	2.0	3.6	Fair	Typical	Fair	Typical			N/A	Outside Carpark Area	1
1003	*Cyathea species*	8	3	100	1.5	2.0	Fair	Typical	Fair	Typical			N/A	Outside Carpark Area	1
1004	*Cyathea species*	9	3	120	1.5	2.0	Fair	Typical	Fair	Vine in canopy			N/A	Outside Carpark Area	1

Tree Assessment												Actions			
Tree ID	*Botanic Name*	Tree Height (m)	Crown Width (m)	DSH (mm)	SRZ radius from trunk (m)	NRZ radius from trunk (m)	Tree Health	Health Comment	Tree Structure	Structure Comment	Comments	Remedial Works	Design Impact Reasoning	Status	Reinspection (years)
1005	*Cyathea species*	7	2	100	1.5	2.0	Fair	Typical	Fair	Vine in canopy			N/A	Outside Carpark Area	1
1006	*Unkown Species*	12	5	160	1.5	2.0	Fair	Typical	Fair	Typical			N/A	Outside Carpark Area	1
D4	*Callicoma serratifolia*	12	12	300	2.0	3.6	Fair	Typical	Fair	Asymmetric Crown Form			N/A	Retain	1

JEREMY YOUNG

Principal Consulting Arborist

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QUALIFICATIONS

- BSc (Hons) Arboriculture and Urban Forestry (AQF Level 8)
- Diploma Arboriculture Upgrade (AQF Level 5 ACH 50510)
- ISA Certified Arborist AU-0011A
- Diploma Horticulture (Arb) (AQF 5)
- Advanced Diploma of Horticulture (Arb) (AQF level 6)
- Certificate of Arboriculture, Merrist Wood UK
- Quantified Tree Risk Assessment (QTRA)
- Tree Risk Assessment Qualification (TRAQ)

SKILLS

- Expert witness
- Trees & Development Assessment
- Tree management plans
- Tree survey & data collection
- Tree risk assessment
- Tree health and structure analysis and management

PROFILE

Jeremy is a highly skilled arboricultural professional with extensive practical experience. With a deep-rooted passion for trees and a commitment to delivering positive outcomes for both clients and the environment, Jeremy holistically analyses and resolves tree-related issues. His well-rounded, informed, and dedicated approach has seen him forge strong relationships with local councils and private sector clients across South-East Queensland. Leveraging his wealth of experience, a commitment to ongoing professional development and his dedication to quality outcomes, he consistently delivers exceptional results.

CAREER EXPERIENCE

2001 - CURRENT
ARBOR AUSTRALIS CONSULTING PTY LTD
DIRECTOR / PRINCIPAL ARBORICULTURAL CONSULTANT

In his role Jeremy offers a full suite of arborist services and leads a team of dedicated professionals whose complementary skills deliver well-rounded solutions for clients. Consultancy work has broadened Jeremy's outlook to problem-solving and strengthened his ability to collaborate both inside and outside the arboricultural industry to get the best outcomes. He has also forged a strong reputation in offering quality expert witness services that support cases in South-East Queensland courts.

1995 - 2009
HERITAGE TREE CARE PTY LTD
DIRECTOR / PRINCIPAL ARBORIST

Jeremy's entrepreneurial spirit led to his establishment of Heritage Tree Care, a company he built with the vision of delivering quality arboricultural practices and customer service excellence. Managing the business and its growth and working as the Principal Arborist strengthened Jeremy's understanding of business management practices as well as developed his practical arborist skills through exposure to a vast array of industry issues.

1994- 1995
THE TREE DOCTOR PTY LTD
CLIMBING ARBORIST

Jeremy's role as a climbing arborist involved pruning and removing trees and coordinating on-site works. This experience expanded his industry and scientific knowledge and developed his practical arborist techniques, specifically climbing.

1987- 1994
JENSEN INTERNATIONAL PTY LTD AND MERRIST WOOD COLLEGE,UNITED KINGDOM

Jeremy worked in the landscape industry, building his knowledge in horticulture and arboriculture, and developing project management skills as the foreman for large commercial projects. His interest and passion for trees developed in this role and led him to study arboriculture in the United Kingdom.

SELECTED PROJECT EXPERIENCE

- Brisbane Cross River Rail Project
- Booker Place Park and Ed Davenport Park Skate Parks
- Clontarf Pedestrian Bridge
- Queens Wharf Brisbane
- Brisbane City Council, Windsor Sports and Community Park
- Brisbane City Council, Mt Coot-tha Botanic Gardens
- City Parklands Services, South Bank Parklands Tree Health Care and Management
- City Parklands Services, Roma St Parklands

DISCLOSURE STATEMENT

Arbor Australis Consulting and their employees are tree specialists who use their qualifications, education, knowledge, training, diagnostic tools and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living near trees. Clients may choose to accept or disregard the recommendations of this assessment and report.

Arbor Australis Consulting and their employees cannot detect every condition that could possibly lead to the structural failure of a tree. Trees are living organisms that fail in ways the arboriculture industry does not fully understand. Conditions are often hidden within trees and below ground. Arbor Australis Consulting cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments cannot be guaranteed.

Treatment, pruning and removal of trees may involve considerations beyond the scope of Arbor Australis Consulting services, such as property boundaries and ownership, disputes between neighbours, sight lines, landlord-tenant matters, and related incidents. Arbor Australis Consulting cannot take such issues into account unless complete and accurate information is given prior or at the time of the site inspection. Likewise, Arbor Australis Consulting cannot accept responsibility for the authorisation or non-authorisation of any recommended treatment or remedial measures.

Trees can be managed, but they cannot be controlled. To live or work near a tree involves some degree of risk. The only way to eliminate all risks associated with a tree is to eliminate tree and human interaction.

All written reports must be read in their entirety. At no time shall part of the written assessment be referred to unless in taken in full context of the written report.

If this written report is to be used in a Court of Law or in any legal situation Arbor Australis Consulting must be advised in writing prior to the written assessment being presented in any form.